TRADITIONAL NAVIGABLE WATERS DETERMINATION

FOR THE ROSEMONT COPPER PROJECT, PIMA COUNTY, ARIZONA

October 18, 2019

I. Introduction.

On September 20, 2019, Rosemont Copper Company (Rosemont) submitted separate requests for an Approved Jurisdictional Determination (AJD) for the Rosemont Copper Project Site and for the Rosemont Utilities Corridor and West Side Operations, supported by technical reports from WestLand Resources evaluating the onsite drainages. These reports included an initial evaluation of the nearest "traditional navigable water" (TNW) for purposes of the significant nexus evaluation. WestLand explained that for purposes of this analysis, it initially determined the location of the nearest navigable-in-fact waterway to which the surface water features addressed in the AJD requests may be tributary. The federal test for determining whether a waterway is navigable-in-fact is whether the waterway is "used, or [is] susceptible of being used, in [its] ordinary condition, as highways for commerce, over which trade and travel are or may be conducted in the customary modes of trade and travel on water." *The Daniel Ball*, 77 U.S. 557, 563 (1870). This test for determining navigability has been used on many occasions by the United States Supreme Court, most recently in *PPL Montana, LLC v. Montana*, 565 U.S. 576 (2012).

All delineated surface water features within the analysis areas for both AJD requests are within the watersheds of the Colorado River, the Gila River (a tributary of the Colorado), and the Santa Cruz River (a tributary of the Gila.) The Colorado River is navigable-in-fact and has been and is regulated as "navigable waters of the United States" under the Rivers and Harbors Act (RHA). *See Arizona v. California*, 283 U.S. 423 (1931). As more fully explained below, neither the Gila River nor the Santa Cruz River is navigable-in-fact, and neither has been regulated previously under the RHA, *i.e.,* they are not considered navigable waters of the United States.

The Environmental Protection Agency (EPA) previously indicated that a reach of the Santa Cruz River downstream of the surface features evaluated in the AJD requests qualifies as a TNW. *See* Letter from Benjamin Grumbles, Assistant Administrator, EPA to John Paul Woodley, Assistant Secretary of the Army (Civil Works) (Dec. 3, 2008) (Santa Cruz TNW Finding) (Attachment A).[1] The reach is referred to as "Study Reach B" and begins at Pima County's Agua Nueva (formerly Roger Road) wastewater treatment plant in northwestern Tucson, Arizona, and ends at the Pima County-Pinal County border in Arizona, a distance of 32 miles. *Id.* Study Reach B is located approximately 51.6 river miles from the East Analysis Area and 27.5 to 46.0 river miles from the West Analysis Area. Historically, this reach was largely ephemeral, and it presently has no natural flow for most of the year. Its base flow is sewage effluent that is discharged from Pima County wastewater treatment plants in northwest Tucson. The Arizona Department of Environmental Quality (ADEQ) has classified Study Reach B as an "effluent-dependent water" for water quality and related purposes. A.A.C. Title 18, Ch. 11, Article 1, Appendix B (surface

[1] The Santa Cruz TNW Finding was based in part on the Memorandum for the Record from Colonel Magness, District Commander, Los Angeles District Corps of Engineers (May 23, 2008) ("Corps Santa Cruz TNW Finding") (Attachment B).

waters and designated uses); *see also* R18-11-113 (process for designating effluent dependent waters).

Downstream from Study Reach B of the Santa Cruz River, the next waterway identified as a possible TNW is the 6.9-mile reach of the Gila River between Powers Butte and Gillespie Dam, located near Arlington, Arizona. The District Engineer of the Los Angeles District determined this reach to be a TNW by memorandum dated October 17, 2008. Memorandum for Commander, Los Angeles District from Brigadier General John McMahon, U.S. Army Commanding, South Pacific Division, regarding Final Determination of "Traditional Navigable Water" Status for the Lower Gila River, Arizona (Oct. 17, 2008) (Gila TNW Finding) (Attachment C). This reach is approximately 205 river miles from the East Analysis Area and 184 to 202 river miles from the West Analysis Area. Base flows in this reach are the result of wastewater treatment plant discharges, irrigation return flows, and runoff from agricultural activities. As with Study Reach B of the Santa Cruz River, this reach is considered an effluent-dependent water by ADEQ. A.A.C. Title 18, Ch. 11, Article 1, Appendix B.

In a lawsuit challenging the designation of Study Reaches A and B of the Santa Cruz River as TNWs, the Corps and EPA represented to the federal court that TNW designations do not determine any legal rights or obligations and that no legal consequences flow from the designation. The court accepted the agencies' characterization of the effect of the TNW designations, and explained that the designation was merely advisory and created no legal obligations. *National Association of Home Builders v. United States Environmental Protection Agency,* 956 F. Supp. 2d 198, 210-12 (D.D.C. 2013), *aff'd on other grounds,* 786 F.3d 34 (D.C. Cir. 2015). Therefore the status of these features as a TNW is open for evaluation in the context of Rosemont's two AJD requests.

II. Discussion.

A. General Concepts.

1. The phrase "Traditional Navigable Waters" ("TNW") means those waters traditionally regulated by the Corps prior to the adoption of the Clean Water Act ("CWA").

The determination of what Arizona rivers qualify as TNWs should be a simple, straightforward inquiry of what was previously regulated by the Corps of Engineers under the RHA. Traditional federal regulatory authority encompassed "navigable waters of the United States" which involved a determination of whether a water body is "navigable-in-fact" and, if so, whether it forms by itself or in conjunction with other waters, a continuous interstate highway for waterborne commerce. 77 U.S. at 563. The guidance issued by EPA and the Corps following the decision in Rapanos v. United States, 547 U.S. 715 (2006), indicates that the phrase "traditional navigable waters" means those waters referred to by 33 C.F.R. § 328.3(a)(1). *Clean Water Act Jurisdiction Following the U.S. Supreme Court's Decision in Rapanos v. United States and Carabell v. United States*, p. 5 n.20 (Dec. 2, 2008) (Rapanos Guidance). The rule is borrowed from and is essentially co-extensive with waters regulated under the RHA. 33 C.F.R. § 329.4.

Thus it should be a simple exercise to determine what waters are TNWs as they would be the same as regulated by the RHA.[2]

2. Recreational use, by itself, is not sufficient to establish that a watercourse is "navigable in fact."

Recreational use alone cannot serve as the basis for designating a water as navigable-in-fact. The Rapanos Guidance[3] references two cases, *FPL Energy Marine Hydro v. FERC,* 287 F.3d 1151 (D.C. Cir. 2002), and *Alaska v. Ahtna, Inc.,* 891 F.2d 1404 (9th Cir. 1989), that involved recreational use and a third, *The Montello,* 87 U.S. 430 (1874), that involved the use of canoes (albeit for transport of furs), without sufficient discussion of the facts of those cases. In fact, all three cases demonstrate that recreational use alone is not sufficient to meet the traditional test of navigability.

As noted above, to be navigable, waters must be "used, or [be] susceptible of being used, in their ordinary condition, as highways for commerce, over which trade and travel are or may be conducted in the customary modes of trade and travel on water . . . ." *The Daniel Ball,* 77 U.S. at 563. *The Montello* represented a refinement of *The Daniel Ball* test in holding that obstructions or obstacles to navigation do not prevent a finding of navigability. That case involved a river system that in its natural state could not have been used by steamboats or larger vessels due to the presence of rapids and other obstructions but nevertheless was used historically to carry a part of the "immense fur trade of the Northwest" over more than a century. *The Montello*, 87 U.S. at 440. There was no question that a substantial canoe-based interstate commerce had been conducted on this waterway. In response to criticism that the decision would result in virtually any stream being considered navigable, the Court said: "It is not, however, . . . every small creek in which a fishing skiff or gunning canoe can be made to float at high water which is deemed navigable, but, in order to give it the character of a navigable stream, it must be generally and commonly useful to some purpose of trade or agriculture." *Id.; see also Harrison v. Fite,* 148 F. 781, 784 (8th Cir. 1906) ("Mere depth of water, without profitable utility, will not render a water course navigable in the legal sense, so as to subject it to public servitude, nor will the fact that it is sufficient for pleasure boating or to enable hunters or fishermen to float their skiffs or canoes"); *North American Dredging Co. of Nev. v. Mintzer,* 245 F. 297 (9th Cir. 1917) (same). Obviously, in *The Montello*, the extensive fur trade conducted on the watercourse in question was the basis for a finding of navigability, not simply the waterway's use by canoes.

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[2] The discussion of traditional navigable waters in *Rapanos* and *SWANCC* support this conclusion. *See Rapanos, supra,* 547 U.S. at 724 (referring to "traditional *interstate* navigable waters." (emphasis added); *id.* at 760-61 (referring to "waters susceptible to use in interstate commerce" as "the traditional understanding of the terms 'navigable waters of the United States"); *SWANCC*, 531 U.S. at 172 ("The term 'navigable' has at least the import of showing us what Congress had in mind as its authority for enacting the CWA: its traditional jurisdiction over waters that were or had been navigable in fact or which could reasonably be so made", *citing to United States v. Appalachian Elec. Power Co.,* 311 U.S. 377, 407-08 (1940)(case involving navigable waters of the United States.)

[3] *See* U.S. Army Corps of Engineers, *Jurisdictional Determination Form Instructional Guidebook* (May 30, 2007), Appendix D, *Legal Definition of "Traditional Navigable Water",* at fn.1.

Recreational use, to the extent it is relevant at all, is merely evidence of commercial use (if the recreational use is itself commercial) or is evidence of susceptibility of use for commercial purposes. *See PPL Montana,* 565 U.S. at 600-01. This proposition is demonstrated in the *Ahtna* case, where the court upheld a finding of navigability of the Gulkana River in Alaska based on evidence of commercial recreational use of the river. It is worth reviewing the factual extent of that use, which was quite substantial. First of all, the river clearly supported substantial flows:

> The Gulkana River System . . . is composed of clear water streams located in southcentral Alaska. . . . It displaces 3,600 to 4,800 cubic feet per second from May to September, decreasing to 200 to 300 cubic feet per second from November through April, when the River lies frozen. . . . The part of the River at issue in this case is its lower 30 miles . . . . The shallowest part of the River, at mile 3.75, is normally a foot and a half deep, diminishing to a foot during low-flow season. On average, however, the River in these lower 30 miles is 125-150 feet wide and 3 feet deep.

891 F.2d at 1402. In addition, the actual and historic commercial use of the river, while recreational in nature, was substantial:

> [T]he River is customarily used, or is susceptible to use, by the following types of watercraft: (1) flat or round-bottom aluminum or fiberglass powerboats 16 to 24 feet long by 4 to 10 feet wide, capable of carrying loads between 900 and 2,000 lbs.; (2) inflatable rafts between 12 and 15.5 feet long by 4 to 7 feet wide, with a load capacity of 1,250 to 2,000 lbs.; and (3) square-sterned motorized freight canoes and double-ended paddle canoes 15 to 19 feet long, capable of carrying loads of 500 to 900 lbs.
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> In the years immediately preceding Alaska's admission into the Union, from the 1940's to 1959, hunters and fishermen traveled the River in powered 16 to 24-foot fiberglass and aluminum watercraft. The watercraft had a load capacity of approximately 1,000 lbs.
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> Most of the use of the River is recreational. On a typical busy weekend day in June or July, 20 boats will use the lower 30 miles of the River, carrying approximately 60 people.
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> Since the 1970's it has been possible to take guided fishing and sightseeing trips on the River. The industry employs watercraft of the type stipulated to be customarily used in the Gulkana, that is, 20 to 24-foot long aluminum powerboats and 12 to 15.5-foot long inflatable rafts. Today, the industry employs over 400 people. Rafts usually carry five passengers and one guide, providing for a load often in excess of 1,000 lbs. Average fare is $150.00 per passenger.

Id. at 1402-03. Thus, *Ahtna* does not stand for the proposition that recreational use alone is sufficient to establish navigability. Instead there was substantial evidence of a commercial industry based on travel on the river.

Recreational use has also been used as evidence of a waterway's susceptibility to commercial use. The *FPL* case, which involved a questionable finding of navigability based on canoe use, presents this type of fact pattern, but even in *FPL*, recreational use alone was not sufficient. Furthermore, the case has unique characteristics that make applying it in an arid state like Arizona problematic.

The *FPL* case arose under the Federal Power Act and upheld a finding by the Federal Energy Regulatory Commission (FERC) that a waterbody was considered "navigable waters of the United States" because it was susceptible to use for commercial purposes. This conclusion was based on the physical characteristics of the waterbody and five experimental canoe trips undertaken expressly for the purposes of litigation to demonstrate whether the waterbody was in fact navigable, three of which were apparently successful. The water body at issue was a mile-long stretch of the Messalonskee Stream from a dam to the Kennebec River. Over half of this stretch was influenced by backwater from the Kennebec River itself, a major river. The dam had three flow settings: normal, full, and minimum. When the dam was operating at normal flow, about 570 to 600 cfs passed through the dam's powerhouse and at full flow up to 650 cfs passed through the powerhouse. The dam operated at this level for "most of the spring and winter months." When discharging, water depth "throughout most of the Messalonskee below the dam is 3 1/2 to 4 feet, with a somewhat shallower area around the two islands; the width of the stream above the islands is between 60 and 90 feet, and the channels on either side of the islands are about 40 and 50 feet wide, respectively." *Kennebec Water District*, 84 F.E.R.C. 61,027 (July 16, 1998). Thus the waterbody had physical characteristics of continuous, substantial flow, plus experimental use that indicated its susceptibility to future use for commercial purposes.

In addition, the court's holding rested largely on the deference owed FERC decisions by statute. Having found navigability, the court was obligated to uphold that finding if there was "substantial evidence" supporting it. *FPL,* 287 F.3d at 1159-60. The court noted that "the evidence of navigability is not overwhelming," and explained that the substantial evidence standard "requires more than a scintilla, but can be satisfied by something less than a preponderance of the evidence." *Id.* at 1160. By contrast, federal decisions arising in other contexts confirm that the proponent of navigability carries the burden of proof, *Harrison,* 148 F. at 785, and that the general federal standard for determining navigability is "preponderance of the evidence." *North Dakota v. U.S.,* 972 F.2d 235, 238 (8th Cir. 1992). Moreover, under the Corps' RHA rules, only a court can finally determine a waterbody to be navigable, 33 C.F.R. § 329.3, and an administrative finding by the Corps of navigability, while given "substantial weight" by a reviewing court, is reviewed *de novo*. *Loving v. Alexander,* 548 F. Supp. 1079, 1087 (W.D. Va. 1982). Moreover, the Corps' administrative process for designating a waterbody as navigable under federal law is quite involved and is a decision that is made at relatively high levels within the agency. It does not appear that the watercourse at issue in the *FPL* case would have been deemed navigable under RHA procedures and burdens of proof.

Moreover, the stream's conditions in *FPL* are only rarely encountered on Arizona rivers and must be distinguished under FPA precedents from conditions that support more marginal recreational use. The flow of the stream in *FPL* was perennial and actual use by canoes was only possible when the dams were releasing water. In addition, the case is based on canoe use and

specifically distinguishes other FERC cases that found that kayak use was insufficient (because of kayaks were capable of navigating waters that could not be used for normal commercial purposes). *FPL*, 287 F.3d at 1157-58. Thus, recreational use based on kayaks or similar "expert" watercraft would not support a navigability finding.[4]

Finally, seasonal use is not sufficient to establish navigability. The Supreme Court summarized three pertinent cases on this point in *U.S. v Utah,* 283 U.S. 64 (1931):

> In the case of the Rio Grande in New Mexico, the Court said: 'Its use for any purposes of transportation has been and is exceptional, and only in times of temporary high water. The ordinary flow of water is insufficient. It is not like the Fox river, which was considered in The Montello, in which was an abundant flow of water and a general capacity for navigation along its entire length, and, although it was obstructed at certain places by rapids and rocks, yet these difficulties could be overcome by canals and locks, and when so overcome would leave the stream, in its ordinary condition, susceptible of use for general navigation purposes.' In . . . describing the Red river in the western part of Oklahoma, [the Court] said that 'only for short intervals, when the rainfall is running off, are the volume and depth of the water such that even very small boats could be operated therein. * * * The rises usually last from 1 to 7 days and in the aggregate seldom cover as much as 40 days in the year'; and, in relation to the eastern part of the river, it was found that 'its characteristics are such that its use for transportation has been and must be exceptional, and confined to the irregular and short periods of temporary highwater.' In [a third case], the Court accepted the findings of the two courts below as to the nonnavigability of the Arkansas river above the mouth of the Grand river in Oklahoma, and the District Court, to whose findings the Circuit Court of Appeals referred, had said that 'The use of that portion of the river for transportation boats has been exceptional and necessarily on high water, was found impractical, and was abandoned. The rafting of logs or freight has been attended with difficulties precluding utility. There was no practical susceptibility to use as a highway of trade or travel.'

Id. at 87 n.12 (citations omitted) (discussing *United States v. Rio Grande Dam & Irrigation Co.*, 174 U. S. 690, 699 (1899), *Oklahoma v. Texas,* 258 U. S. 574, 587 (1922), and *Brewer-Elliott Oil & Gas Co. v. United States,* 260 U. S. 77, 86 (1922)).

3. Effluent flow is insufficient as a matter of law to render a waterbody navigable-in-fact.

The main source of perennial flow in both the Santa Cruz River and the Gila River downstream of Rosemont is treated wastewater ("effluent" or "reclaimed water") discharged from treatment plants located along the river. However, the presence of effluent cannot be considered the "ordinary" or "natural" condition of the river, and therefore cannot be used to support a finding

[4] *See also* Pierce, Richard J., Essay, *What is Navigable Water? Canoes Count But Kayaks Do Not,* 53 Syracuse L. Rev. 1067 (2003).

of navigability. *See, e.g., The Montello*, 87 U.S. at 441-42 (navigability must be evaluated based on a river's "natural state"); *State ex rel. Winkleman v. ANSAC* ("*Winkleman*"), 224 Ariz. 230, 241 ¶ 28 (App. 2010) (a river must be assessed "in its ***ordinary*** (i.e., usual, absent major flooding or drought) ***and natural*** (i.e., without man-made dams, canals, or other diversions) ***condition***" (emphasis added)); *United States v. Holt State Bank*, 270 U.S. 49, 56 (1926) (watercourses "are navigable in fact when they are used, or are susceptible of being used, in their ***natural and ordinary condition***, as highways for commerce, over which trade and travel are or may be conducted in the customary modes of trade and travel on water…." (emphasis added)).

Moreover, there are no assurances that such discharges will continue and, if they do, at a level that will support commercial navigation. In fact, as a legal matter, the treatment plant operator is under no obligation to continue the discharge. In *Arizona Public Service v. Long,* 160 Ariz. 429 (1989), farmers that diverted flow out of the Gila River at Gillespie Dam (the downstream end of the TNW segment identified by the Corps) sued the cities that operated the wastewater treatment plant upstream of the Gila River on the Salt River. The cities had entered into an agreement with Arizona Public Service, the electric utility operating the Palo Verde Nuclear Power Plant, for sale of effluent as cooling water for Palo Verde. The farmers sought to force the cities to continue discharging effluent, claiming rights to the effluent. The court disagreed, holding that the cities had no obligation to continue to discharge wastewater.

The importance of effluent as a source of water for direct use (particularly landscape water) and for aquifer recharge is only increasing, particularly with the stresses that extended drought have placed on surface water supplies. In fact, Arizona's statutes governing underground storage of water in aquifers, A.R.S. § 45-801.01 *et seq.,* actually penalizes a treatment plant for discharging effluent to the bed of a stream by giving only 50% credit for effluent discharged to the stream as opposed to recharged outside the stream in settling basins or recharge wells. *Id.* § 45-852.01(C)(1). (50% credit for effluent recharged by discharging to a watercourse); *id.* § 45-852.01(C)(4) (100% credit for effluent recharged outside of a watercourse). Thus, the discharges that currently support perennial flow are likely to diminish over time as the demand for effluent increases.

B. Navigability of the Santa Cruz and Gila Rivers

1. The Arizona Navigable Stream Adjudication Commission.

Under the Equal Footing Doctrine, the State of Arizona gained title to all lands below the ordinary high water mark of all navigable watercourses in the State upon statehood. *Winkleman,* 224 Ariz. at 234 ¶ 2; *PPL Montana,* 565 U.S. at 591. The State "may allocate and govern those lands according to state law subject only to 'the paramount power of the United States to control such waters for purposes of navigation in interstate or foreign commerce.'" *PPL Montana,* 565 U.S. at 591.

The State of Arizona has been engaged in a lengthy and exhaustive process for determining which waters in the State are navigable for title purposes. Legislation passed in 1992 authorized the creation of the Arizona Navigable Stream Adjudication Commission (Commission or ANSAC), which was charged with taking evidence from the Arizona State Land Department (ASLD) and the public, and then making a determination of a river's navigability, which decision

can be appealed and reviewed judicially. *Winkleman,* 224 Ariz. at 235 ¶ 5; *see also* A.R.S. § 37-1121 *et seq.,* (Commission's governing statute).

The Commission's proceedings have included a full evaluation of the Gila and Santa Cruz Rivers, including the reaches determined to be TNWs. *See* Arizona Navigable Stream Adjudication Commission, *First Addendum to the Report, Findings and Determination Regarding the Navigability of the Gila River from the New Mexico Border to the Confluence with the Colorado River, Greenlee, Graham, Gila, Pinal, Maricopa, and Yuma Counties dated January 27, 2009* (June 28, 2018) (ANSAC Gila Determination) (Attachment E); *First Addendum to the Report, Findings and Determination Regarding the Navigability of the Santa Cruz River from the Mexican Border to the Confluence with the Gila River dated October 18, 2006* (June 28, 2018) (ANSAC Santa Cruz Determination) (Attachment F). The proceedings for each river have included a detailed report by ASLD on the historical uses of the rivers, coupled with public hearings and submission of substantial evidence by interested parties, and a final written decision by the Commission.[5]

The decision of the Commission and, more importantly, the evidentiary record developed in support of those decisions are directly relevant to a TNW determination by the Corps in this instance.[6] Obviously, a decision of a tribunal charged with determining navigability of a waterbody through a formal adjudicative process is entitled to some weight. More importantly, since the test used to determine navigability in the title context is a federal one based on *The Daniel Ball* test, the evidentiary record developed through the Commission's proceedings is directly relevant to determining whether waters under consideration are or ever were navigable-in-fact. *See Winkleman,* 224 Ariz. at 235 ¶ 5 (discussing the test for navigability)

It is important to point out that there are nuances to the test that differ depending on the legal context. For example, in the title context, navigability or susceptibility to navigation are determined as of the date of statehood. *PPL Montana,* 565 U.S. at 592-93. In the federal regulatory context, jurisdiction extends to waters once deemed navigable but are no longer so, waters that have only recently become navigable, as well as waters that could become navigable with reasonable improvements. *Id.* Despite these differences, the facts underlying a navigable-in-fact determination in both contexts substantially overlap. For example, in both contexts, the navigable status of the waterbody through history is important. Similarly, current uses of the waterbody can be relevant to its current navigable status under the federal regulatory regime as well as its status at statehood. *Id.* at 602-03 (use today can be evidence of susceptibility of use at statehood).

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[5] The Commission's determination on the Santa Cruz River has not been appealed and is considered final. The determination on the Gila River has been appealed and that appeal is pending in Maricopa County Superior Court. *See* e-mail from George Mehnert, Director, ANSAC-Navigable Streams, to Interested Parties regarding Rivers Appealed and Rivers Not Appealed (March 28, 2019).

[6] We are including here excerpt from the Commission's administrative record that are directly relevant to the determination of navigability of the Gila and Santa Cruz Rivers. We incorporate by reference the balance of the Commission's record and are providing links to records which are available on line. We plan on submitting an electronic version to the Corps shortly.

2. The Santa Cruz River is not used, or susceptible of being used, in its ordinary condition, as a highway for commerce.

The Santa Cruz River is not and has never been navigable-in-fact. It has its headwaters in the base of the Canelo Hills in Santa Cruz County, where it flows south into Mexico before re-entering the United States six miles east of Nogales. ANSAC Santa Cruz Determination 12. It then flows northward through Santa Cruz, Pima and Pinal Counties before its confluence with the Gila River southwest of Phoenix.

For purposes of determining navigability, the Commission divided the Santa Cruz into three segments: (1) Headwaters to the Mexican Border (Upper Reach); (2) Mexican Border to Santa Cruz Flats, an area northwest of Marana where the channel of the River spreads out and becomes undefined (Middle Reach); and (3) the Santa Cruz Flats to the confluence with the Gila River (Lower Reach). *Id.* at 14-15. For the Rosemont AJD, only the Middle Reach and Lower Reach are relevant since the Upper Reach is upstream of where the flow paths from the Rosemont analysis areas meet the Santa Cruz.[7] The flow path from the West Side Analysis Area connects to the Santa Cruz just south of and upstream of San Xavier del Bac. The Middle Reach as defined by the Commission is 128 river miles long. As noted above, Study Reach B falls entirely within the Middle Reach, making up about 32 river miles from the Agua Nueva treatment plant in Tucson to the Pima County border north of Marana. The Middle Reach terminates a few miles north of the County border in the Santa Cruz Flats.

a. The Lower Reach of the Santa Cruz River.

There is no evidence that the Lower Reach was or could ever be navigable-in-fact. The parties in the ANSAC proceedings agreed that the Lower Reach not "navigable or susceptible to navigation in its ordinary and natural condition at or before statehood . . . ." *Id.* at 15. The Commission reviewed the facts and reached the same conclusion. Basically, the Lower Reach was ephemeral with the exception of a large cienega (marsh) located on the Gila River Reservation. *Id.;* Declaration of Rich Burtell on the Non-Navigability of the Santa Cruz River At and Prior to Statehood ¶¶ 53-63 (October 2013) (Burtell Santa Cruz Decl.) (Attachment G); Gookin, Navigability of the Santa Cruz River (April 14, 2014) (Gookin Santa Cruz Report) (Attachment H). The Lower Reach did not support perennial flows and only discharged to the Gila River in significant storm events. ASNAC Santa Cruz Determination 15. Moreover, there is no record of boating or boating attempts in this segment of the river. *Id.* at 16; Burtell Santa Cruz Decl. ¶¶ 61-62; JE Fuller *et al.*, *Arizona Stream Navigability Study for the Santa Cruz River, Gila Confluence to the Headwaters, Final Report* 64 (Revised Jan. 12, 2004) (report prepared for ASLD) (Fuller Santa Cruz Report) (Attachment I). Given the lack of perennial flow or boat use, there is no basis to consider this river segment navigable or susceptible to such use, and in fact no party argued that it should be.

b. The Middle Reach of the Santa Cruz River.

[7] The parties agreed that the Upper Reach was not navigable at statehood and it was addressed by the Commission in a separate report as a "small and minor watercourse." *Id.* at 15.

Like the Lower Reach, the Middle Reach is not and never was navigable-in-fact and cannot be considered susceptible of navigation in the future. Historically, this river segment included some intermittent and perennial reaches. ANSAC Santa Cruz Determination 18. From Tubac to San Xavier, the river "went subsurface and disappeared for most of the year . . . ." *Id.* North of San Xavier, there were three stretches of the river that historically contained perennial flow, but the flow was limited and tended to be too shallow to support boat traffic. *Id.* at 18-19; Burtell Santa Cruz Decl. ¶ 29 (describing flows in perennial reaches as "1 foot or less"). Mr. Burtell's Declaration contains a detailed analysis of historic stream flows, and based on that analysis, he concludes the none of the flows were sufficient to support commercial navigation. *Id.* at ¶¶ 32-40.

There were two artificial lakes created in the 19th Century within the channel of the river near downtown Tucson but neither remained for an extended period of time due to drought and flooding cycles. ANSAC Santa Cruz Determination 20. Mr. Burtell provided a more detailed description in his Declaration:

> 47. As described in detail by Bentacourt (1990), both Silver and Warner lakes were man-made water features. Silver Lake was formed in 1857 after a low earthen dam was constructed across the Santa Cruz River about 1 mile south of Sentinel Peak and downstream of a spring (p. 52). By 1881, this earthen dam had been replaced by a masonry one and resort facilities were added (p.88). Warner Lake was formed in 1883 at the foot of Sentinel Peak. It collected runoff from the base of the peak and runoff from the West Branch of the Santa Cruz River behind a large earthen dam that was wide enough on its top for a roadway (pp. 91-92). The effects from Warner Lake on downstream flows in the Santa Cruz River were litigated in 1884 (pp. 94-95).
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> 48. Clearly, Silver and Warner lakes were not natural water bodies and any boating on them should not be considered when determining the navigability of the Santa Cruz River in its ordinary and natural condition. No mention of lakes in this area was made prior to their construction (see Section A of this declaration) and, after intense flooding in February 1890 washed out their dams, "neither the dams nor the lakes were rebuilt." (Fuller, 2004a. Section 3, p. 44).

Burtell Santa Cruz Decl. ¶¶47-48. While there appears to have been some recreational boating on these "lakes," the use was sporadic and not in any way resembling a "highway for commerce." As Mr. Burtell pointed out, the presence of these lakes in the 1800's for a brief period of time cannot be considered the "ordinary" or the "natural" condition of the Santa Cruz. *See The Daniel Ball, supra.*

There is no archaeological evidence that the Santa Cruz River was navigated by early inhabitants. ANSAC Santa Cruz Determination 32; Burtell Santa Cruz Decl. ¶ 41. The historic record is similarly devoid of evidence of use of the river for commercial or military navigation. ANSAC Santa Cruz Determination 33-34. Besides the recreational boating occurring on the two lakes in Tucson, evidence of boating in the 1800's consists of two reports – one in which a land speculator claimed that the river was capable of floating steamboats, "which was immediately and widely recognized as 'pure fiction,'" and a second where a settler attempted to *cross* the river in a

boat. ANSAC Santa Cruz Determination 36; *see also North Dakota v. United States*, 770 F. Supp. 506, 511 (D. N.D. 1991) (use of a watercraft solely to cross a river – rather than to conduct commercial trade or travel upstream or downstream – does not demonstrate that a river is navigable). More recent accounts of boating on the river took place during high flow conditions (after storms), which is not a basis to find a watercourse to be navigable-in-fact. *U.S. v Utah,* 283 U.S. at 87 n.12 (seasonal use is not sufficient to establish navigability); Burtell Decl. ¶¶ 49-52.

The Corps' Santa Cruz TNW Finding improperly relies on two instances of such sporadic boating following storm events in determining that the Santa Cruz River is navigable-in-fact. A critique of the Corps' determination was provided by the National Association of Home Builders, Home Builders Association of Central Arizona, and Southern Arizona Home Builders Association by letter to Corps Headquarters dated July 25, 2008 and is incorporated herein as Attachment J.

3. The Gila River is not used, or susceptible of being used, in its ordinary and natural condition, as a highway for commerce, over which trade and travel are or may be conducted in the customary modes of trade and travel on water.

As with the Santa Cruz River, the Commission divided the Gila River into segments to evaluate its navigability. ANSAC Gila Determination at 14. Three of the segments – Segment 6 (Ashurst-Hayden Dam to Salt River Confluence), Segment 7 (Salt River to Dome) and Segment 8 (Dome to Colorado River) are relevant to this discussion. The Gila River's confluence with the Santa Cruz occurs at the lower end of in Segment 6. Segment 7 and 8 are downstream. Segment 7 contains the reach of the Gila River identified as a TNW.

In a study prepared by ASLD, the Gila River is described thus: "The Gila River is a classic example of a dryland river that seldom seeks an equilibrium form. Unlike rivers in humid regions that have more stable channels adjusted for more continuous streamflow with less variance in discharge, the dryland rivers are inherently more unstable and more prone to changes in channel configuration. In such instable fluvial systems, channel configuration depends much upon the history of previous flood events. Periods of high flood frequency are likely to correlate to periods of increased channel instability." Fuller et al., *Arizona Stream Navigability Study for the Gila River: Colorado River Confluence to the Town of Safford*, Draft Final Report (Revised June 2003), at VII-9 to VII-10 (report prepared for ASLD) (Fuller Gila Report) (Attachment K). The river has been modified substantially by dams and water diversions such that long stretches, which may have formally been perennial, are now intermittent or even ephemeral. *Id.*

These channel conditions made navigating the river quite difficult, and no established commercial navigation took place in historic times, in contrast to the lower Colorado River. *See generally id.*, Chapter IV. ANSAC concluded that the Gila River is not navigable. ANSAC Gila Determination 67. As discussed above, the Corps also reviewed the navigability of the Lower Gila River (below Painted Rock Dam) in the 1970's and also concluded that that river segment was not navigable-in-fact. Foley Memorandum at 4. ANSAC for its part, in a lengthy opinion, examined the river's hydrology and geomorphology, the channel configuration, potential impediments to navigation, the river in its "ordinary and natural condition," its susceptibility to commercial navigation, and finally instances of boating on the river. Its key factual conclusions that are relevant to a determination of navigability-in-fact include:

1. The Gila has always been subject to unpredictable flooding and seasonal periods of high flows; it is spatially and temporally heterogenous.

2. The channel changes that persist after flood flows recede are part of the River's "ordinary" condition as are other long-term changes to the River (for example debris left by flooding).

3. The prehistoric habitants in the area did not use the Gila as a highway for commerce.

4. Early trappers and settlers did not use the Gila as a highway for commerce.

5. To this date, the Gila is not used for commercial navigation, though recreational boating occurs in some segments.

….

12. Some historical instances of boating on the Gila have been reported. However, the rarity of the reports and the fact that they were often seen as newsworthy suggests that the Gila was (a) not actually used as a highway for commerce prior to statehood and (b) was not in its ordinary and natural condition at the time of statehood, susceptible to being used as a highway for commerce. Moreover, most instances were unsuccessful and, except for the use of boats to cross the River for travel or trapping, lacked a commercial intent.

. . .

16. In its "ordinary" and "natural" condition, the Gila is typified by low flows.

17. The dynamic, variable nature of the River is part of its "ordinary" condition.

18. While some braided rivers can be used as a highway for commerce, it takes far more river flow than any of the experts or records suggest for the Gila. The braided planform that existed and the really low flows at the time of statehood would have made commercial navigation very impractical.[8]

19. The presence of . . . rapids on the Gila did not preclude navigation, but did make it more difficult for historic boaters to navigate the River safely, particularly with heavy cargo.

20. In addition to rapids, sandbars, rock outcroppings, beaver dams, marshes, and strainers are ordinary and natural conditions that existed in various parts of the

[8] This is a conclusion based on ANSAC's need to determine navigability at statehood. The conclusion applies equally to today as evidence by the fact that there is no commercial navigation of the River today.

River at the time of statehood. Each of these conditions made commercial navigation more difficult and less practicable.[9]

. . .

22. The fact that a skilled kayaker in a modern plastic or inflatable craft can float, bump and scrape down a shallow stream does not make it navigable. If that were the case, modern recreational boating enthusiasts have demonstrated that nearly every stream in the United States is navigable for title purposes. A commercial boater or traveler at the time of statehood would have far greater concern for crashing, wrecking, or swamping their boats and damaging or losing their valuable cargo or customers. This explains the dearth of boating in the Gila's history until the later twentieth century when plastic boats were introduced.

23. Historical records indicate that prior to and at the time of Arizona's statehood the Gila River was considered not navigable by virtually every contemporaneous observer.

24. Historically, the Gila River was highly erratic, subject to flooding and major channel changes, and blocked by obstacles.

25. Occasional use in exceptional times does not support a finding of navigability.

ANSAC Gila Determination 63-66. Note that while some of the conclusions are based on conditions at statehood (reflecting the "navigability for title" purposes of ANSAC's inquiry), the conclusions apply with equal force today. These same conclusions, and the evidence they are drawn from, support the conclusion that the Gila River is not now and never has been navigable-in-fact.

ANSAC obviously relied on an extensive record to make these conclusions. Key reports and evidence relied upon are included as attachments, including: Gookin, *Report on the Navigability of the Gila River* (May 19, 2014) (attachment L); Littlefield, *Assessment of the Navigability of the Gila River Between the Mouth of the Salt River and the Confluence with the Colorado River Prior to and On the Date of Arizona's Statehood February 14, 1912* (Nov. 12, 2013) (Attachment M); Mussetter, *Declaration of the Navigability of the Gila River Between the Arizona-New Mexico Stateline and the Confluence with the Colorado River* (Jan. 8, 2014) (Attachment N); Affidavit of Richard E. Lingenfelter (May 16, 2014) (Attachment O).

C. Conclusion

Neither the Santa Cruz River nor the Gila River are navigable-in-fact waterways, either currently or historically. There is simply no credible evidence that either river has been used as a highway for interstate commerce or is susceptible to such uses. The fact that some reaches have had sporadic boaters on them, following local storm events, or contain flow due to discharges from

[9] This is another conclusion based on conditions at statehood that persist to today.

wastewater treatment plants is not enough to support a finding of navigability. Therefore, the Corps should consider the Colorado River to be the nearest TNW in determining whether the washes and drainage features described in Rosemont's AJDs are subject to regulations as waters of the United States.

ATTACHMENTS

Attachment A - Letter from Benjamin Grumbles, Assistant Administrator, EPA to John Paul Woodley, Assistant Secretary of the Army (Civil Works) (Dec. 3, 2008). Accessed at: http://www.ansac.az.gov/UserFiles/PDF/11122013/Santa%20Cruz%20TNW%20Letter%20DEC%2003%2008.pdf

Attachment B – a navigable-in-fact Accessed at:

http://www.ansac.az.gov/UserFiles/PDF/11122013/USACE_Santa_Cruz_River_TNW_Determination.pdf

Attachment C - Memorandum for Commander, Los Angeles District from Brigadier General John McMahon, U.S. Army Commanding, South Pacific Division, regarding Final Determination of "Traditional Navigable Water" Status for the Lower Gila River, Arizona (Oct. 17, 2008).

Attachment D - Memorandum from John V. Foley, District Engineer, Los Angeles District, Army Corps of Engineers to Headquarters, Department of the Army through the Division Engineers, South Pacific Division regarding the Navigability of the Gila River between Painted Rock Dam and the confluence with the Colorado River (October 30, 1973).

Attachment E – Arizona Navigable Stream Adjudication Commission, *First Addendum to the Report, Findings and Determination Regarding the Navigability of the Gila River from the New Mexico Border to the Confluence with the Colorado River, Greenlee, Graham, Gila, Pinal, Maricopa, and Yuma Counties dated January 27, 2009* (June 28, 2018). Accessed at: http://www.ansac.az.gov/UserFiles/File/pdf/finalreports/Gila%20River_062818.pdf

Attachment F - Arizona Navigable Stream Adjudication Commission, *First Addendum to the Report, Findings and Determination Regarding the Navigability of the Santa Cruz River from the Mexican Border to the Confluence with the Gila River dated October 18, 2006* (June 28, 2018). Accessed at: http://www.ansac.az.gov/UserFiles/File/pdf/finalreports/Santa%20Cruz%20River_062818.pdf

Attachment G - Declaration of Rich Burtell on the Non-Navigability of the Santa Cruz River At and Prior to Statehood (October 2013) (Burtell Santa Cruz Decl.). Accessed at: http://www.ansac.az.gov/UserFiles/PDF/11122013/Declaration%20of%20Rich%20Burtell.pdf

Attachment H - Gookin, Navigability of the Santa Cruz River (April 14, 2014) (Gookin Santa Cruz Report). Accessed at: http://www.ansac.az.gov/UserFiles/PDF/05152014/X007_GRICNewEv/Final%20Santa%20Cruz%20Report.pdf

Attachment I – JE Fuller, *et al. Arizona Stream Navigability Study for the Santa Cruz River, Gila Confluence to the Headwaters, Final Report* (Revised Jan. 12, 2004) (report prepared for ASLD) (Fuller Santa Cruz Report). Accessed at: http://www.ansac.az.gov/UserFiles/PDF/09042014/SantaCruzOldCaseEv/019%20-%20EngrStudyFuller.pdf

Attachment J: Letter from William Killer, Vice President, National Association of Home Builders, Connie Wilhem, President and Executive Director, Home Builders Association of Central Arizona, and Edward P. Taczanowski, President, Southern Arizona Home Builders Association to John Paul Woodley, Jr. Assistant Secretary of the Army, Civil Works (July 25, 2008).

Attachment K: Fuller *et al.*, *Arizona Stream Navigability Study for the Gila River: Colorado River Confluence to the Town of Safford, Final Report* (Revised June 2003) (report prepared for ASLD) (Fuller Gila Report). Accessed at: http://www.ansac.az.gov/UserFiles/PDF/09042014/GilaOldCaseEv/004%20-%20Fuller,%20June%202003%202003%20Lower%20Gila%20ASLD%20Navigability%20Repo.pdf

Attachment L: Gookin, *Report on the Navigability of the Gila River* (May 19, 2014) Accessed at: http://www.ansac.az.gov/UserFiles/PDF/06122014/X009_GRICGookinReport/Gila%20River%20Gookin%20Rpt%20Final.pdf

Attachment M: Littlefield, *Assessment of the Navigability of the Gila River Between the Mouth of the Salt River and the Confluence with the Colorado River Prior to and On the Date of Arizona's Statehood February 14, 1912* (Nov. 12, 2013). Accessed at: http://www.ansac.az.gov/UserFiles/PDF/03202014/X002_SRPLittlefieldRevised/Gila%202013%20Littlefield%20Gila%20report%2011-12-13.pdf

Attachment N: Mussetter, *Declaration of the Navigability of the Gila River Between the Arizona-New Mexico Stateline and the Confluence with the Colorado River* (Jan. 8, 2014). Accessed at: http://www.ansac.az.gov/UserFiles/PDF/03202014/X003_SRPMussetterDeclaration/Gila%202013%20Mussetter%20Gila%20report%201-8-14.pdf

Attachment O: Affidavit of Richard E. Lingenfelter (May 16, 2014). Accessed at: http://www.ansac.az.gov/UserFiles/PDF/05192014/X008_FMIAddlEvidence/Affidavit%20of%20Richard%20Lingenfelter.pdf

Also note that we incorporate by reference the entire Arizona Navigable Streams Adjudication Commission record for the Gila River and the Santa Cruz River. The record can be accessed here:

Main Commission website and directory: http://www.ansac.az.gov/default.asp

Old case[10] evidence: http://www.ansac.az.gov/OldCaseEvidence.asp

Old case transcripts: http://www.ansac.az.gov/OldCaseTranscripts.asp

New case – supplemental evidence: http://www.ansac.az.gov/SupplementalEvidence.asp

Remand case transcripts: http://www.ansac.az.gov/transcripts.asp

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[10] The introductory section of the Commission's Gila River and Santa Cruz River decisions discuss the original proceedings ("old case") which were then remanded following the Arizona Supreme Court's decision in *State ex rel. Winkleman v. ANSAC*, 224 Ariz. 230 (App. 2010). The subsequent proceedings are called the "remand" or "new" case.